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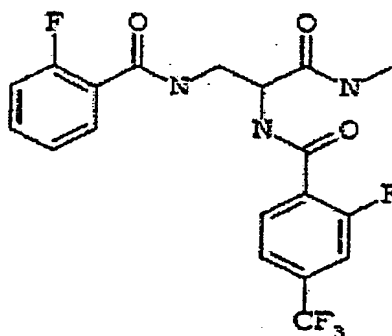
We claim:

1. The use of one or more enzymes selected from the group consisting of the enzymes tryptophan
5 aminotransferase, indole-3-pyruvate decarboxylase
and indole-3-acetaldehyde oxidase in a method for
identifying compounds with herbicidal activity.
2. A method for identifying herbicidally active
10 substances, comprising the following steps:
 - a) bringing one or more enzymes selected from
the group consisting of the enzymes
15 tryptophan aminotransferase, indole-3-
pyruvate decarboxylase and indole-3-
acetaldehyde oxidase into contact with one or
more test substances under conditions which
permit the binding of the test substance(s)
to one of the abovementioned enzymes or to
20 the nucleic acid sequence which encodes one
of the abovementioned enzymes; and
 - b) detecting if the test substances reduce or
block the transcription, translation or
25 expression of at least one of the
abovementioned enzymes; or
 - c) detecting whether the test substances reduce
or block the activity of at least one of the
30 abovementioned enzymes; or
 - d) detecting whether the test substance binds to
one of the abovementioned enzymes.
3. A method as claimed in claim 1, wherein the test
35 compound

- 5 a) is treated with a plant cell lysate which comprises at least one of the enzymes tryptophan aminotransferase, indole-3-pyruvate decarboxylase and indole-3-acetaldehyde oxidase or
- 10 b) with at least one of the enzymes tryptophan aminotransferase, indole-3-pyruvate decarboxylase and indole-3-acetaldehyde oxidase which are either partially or fully purified, and
- 15 c) the enzymatic activity of at least one of the abovementioned enzymes is subsequently determined in comparison with the activity of at least one of the abovementioned enzymes which has/have not been treated with a test compound, those chemical compounds which reduce or block the activity of at least one of the abovementioned enzymes being selected.
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4. A method as claimed in claim 2 or 3, wherein tryptophan aminotransferase is employed as the enzyme.
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5. A method as claimed in claim 2, wherein tryptophan or a tryptophan derivative is employed as substrate and the enzymatic activity in step (c) is determined via
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- a) the decrease in L-tryptophan; or
- b) the increase in indole-3-pyruvate; or
- 35 c) the increase in indole-3-acetaldehyde; or
- d) the increase in indole-3-acetic acid; or

- e) the increase in indole-3-butyric acid; or
- a combination of at least two of the methods (a) to (e).
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6. A method as claimed in claim 2, wherein indole-3-pyruvate or an indole-3-pyruvate derivative is employed as the substrate and the enzymatic activity in step (c) is determined via
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- a) the decrease in indole-3-pyruvate; or
- b) the increase in indole-3-acetaldehyde; or
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- c) the increase in indole-3-acetic acid; or
- d) the increase in indole-3-butyric acid; or
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- e) a combination of at least two of the methods (a) to (d).
7. A method as claimed in claim 2, wherein indole-3-acetaldehyde or an indole-3-acetaldehyde derivative is employed as the substrate and the enzymatic activity in step (c) is determined via
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- a) the decrease in indole-3-acetaldehyde; or
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- b) the increase in indole-3-acetic acid; or
- c) a combination of methods a) and b).
8. A method as claimed in one of claims 2 to 7, wherein the enzymatic activity is determined spectroscopically.
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9. A method as claimed in any of claims 2 to 8, wherein the substances are identified in the form of a high-throughput-screening.
- 5 10. A method as claimed in any of claims 2 to 9, wherein the compound selected by means of the method is applied to a plant to verify the herbicidal activity.
- 10 11. The use of compounds with herbicidal or growth-regulatory activity for controlling undesired vegetation, wherein the compounds inhibit one or more compounds selected from the group consisting of the enzymes tryptophan aminotransferase, 15 indole-3-pyruvate decarboxylase and indole-3-acetaldehyde oxidase.
12. The use as claimed in claim 11, wherein the compounds with herbicidal or growth-regulatory 20 activity are formulated with the aid of adjuvents which are suitable for the formulation of agricultural compositions.
13. The compound of the formula (I)
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14. The use of compounds as claimed in claim 13 for controlling undesired vegetation.